

**SAN FRANCISCO'S LOMA PRIETA EXPERIENCE**

with an emphasis on State programs and policies  
and their implications for local recovery

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## INTRODUCTION AND OVERVIEW

Nine of the eleven deaths attributed to the Loma Prieta earthquake in San Francisco resulted from collapsed or damaged buildings. Many of the injuries and economic impacts of the earthquake are also directly related to building damage. There are lasting social and economic effects of the building damage which resulted from the Loma Prieta earthquake. The loss of housing, particularly housing for those with low and moderate incomes, has exacerbated an existing shortage of residential units. The costs of repairing and rebuilding damaged private and public buildings, and improving both damaged and undamaged buildings so that they will survive future (and larger) earthquakes, is too large to be borne locally.

The following discussion of San Francisco's experience since the Loma Prieta earthquake is organized into the general types of activities undertaken by government as a result of this earthquake: Life Safety (fire suppression and search and rescue); Building Safety (immediate inspection and posting of structures); Information Management; Shelter and Temporary Housing; Recovery (the Individual Assistance Program and the Public Assistance Program); and Hazard Mitigation. It concentrates on the activities in which there is a substantial State, or shared local/State/federal responsibility, and on those activities where our experience uncovered shortfalls of resources, inadequate preparation, or lack of coordination. In each section a short discussion of the events following the Loma Prieta earthquake and an identification of problems which occurred precedes our general recommendations for future State actions and policies.

We believe that San Francisco's Loma Prieta experience shows that recovery programs should be as simple as possible and should be administered as close to the local level as possible. Problems arose when programs were complex and numerous, and when many different agencies and levels of government were involved. The needs of victims could be served better, and more efficiently, if programs could be administered closer to the local level and with considerable local involvement.

The local involvement that we recommend should be part of a comprehensive preparedness and response program tailored to local needs. The National Earthquake Hazards Reduction Act includes "hazard identification, vulnerability assessments, preparedness and response planning, mitigation planning and public awareness/education" among the eligible activities which it will fund (on a cost-sharing basis). Because the Act treats "local units of government and or substate areas that include a number of local government jurisdictions" as definitionally equivalent to State agencies, we believe that this program could directly fund these local efforts, in addition to its funding for State agencies. In order to avoid the problems of excessive and duplicative documentation requirements and inter-agency procedures, this funding should be provided as a "block grant". It should be conditioned on the operation of an effective and efficient overall earthquake preparedness program, rather than on the examination of each small piece of the program against very specific eligibility standards.

This is not to say, however, that there should be less State involvement in preparation for, and recovery from, disasters. The State of California



should, in cooperation with local agencies, design programs and systems which could be implemented on the local level and train local staff. For example, OES is better prepared than most localities to design a model citizen volunteer training program, which could be used by cities and counties.

Part of the State-level program should be the development of standards to be met by local agencies participating in disaster recovery, in order to assure that localities are well prepared to carry out the responsibilities that we have advocated they be given. These could include standards for and oversight of local preparedness plans and organizations, mitigation programs, and post-disaster administrative structures.

Finally, many State programs were instituted in response to the Loma Prieta earthquake, and are being funded by the temporary sales tax increase. The State, as well as local governments, should have legislation in place, including programs and revenue sources, which could automatically take effect or easily be enacted in response to an emergency. For example, after a declared emergency when damage estimates exceed some pre-determined level (perhaps \$500 million) a temporary sales tax increase could occur automatically.

## 1. LIFE SAFETY

Immediately following the Loma Prieta earthquake, emergency response was provided by municipal response organizations, and primarily by the San Francisco Fire Department. The Fire Department responded to 34 fires between 5:04 p.m. on October 17 through midnight on October 19. All resulted directly or indirectly from the earthquake. The Fire Department, with the help of citizen volunteers, also engaged in search and rescue efforts where buildings had collapsed. The Fire Department response to fires and collapsed buildings was generally according to standard operating procedures. Deficiencies in communications and fire-fighting infrastructure have been identified by the Department, and will be addressed within ongoing Department and City processes, as well as within FEMA's Hazard Mitigation Grant Program administered by the California Office of Emergency Services.

Fire Department staff also feel that some necessary training and emergency transportation efforts could be most effectively undertaken on a state or regional level. Fire, Police and Emergency Medical Services staff are well trained to carry out their emergency functions. However, in a major disaster a much larger pool of people trained in fire suppression, first aid, simple search and rescue, and building safety than is currently available will be needed. It should include both non-emergency City staff and citizen volunteers, and be able to work under the direction of firefighters or independently. Many neighborhood groups have expressed interest in being trained in emergency response. The Fire Department has begun a training program which involves fifteen hours of training, and which has trained 24 citizen volunteers in its first year. Clearly, larger scale effort is needed, but is currently beyond local resources.

The State is currently developing a program to assist local governments develop civilian volunteer training. The State, as part of its responsibility



for education and information dissemination, should aggressively promote the establishment of local citizen volunteer training programs. This could include funding local training programs, providing manuals and teaching materials to local agencies, training the local trainers, providing equipment to citizen volunteers, perhaps including a training session for citizen volunteers at the California Specialized Training Institute.

In some cases, essential City staff, including emergency responders, were unable to travel into the City immediately after the earthquake. Had the Golden Gate Bridge been out of service, this would have been a much more severe problem. The State should facilitate an intra-regional system, including local governments and public and private transportation providers, to immediately transport essential personnel to and from pre-determined points after a major disaster.

## 2. BUILDING SAFETY

The Bureau of Building Inspection (BBI) was responsible for the categorization of damaged buildings, and for immediate decisions about the safety of damaged buildings. BBI, with the help of volunteer inspectors, used the ATC-20 system to classify buildings as "red," (unsafe), "yellow," (limited entry), and "green" (no restriction on use or occupancy). Over 18,000 inspections were performed after the earthquake.

Within one month of the earthquake, 234 buildings had been red tagged. Fifty-five of these buildings had already been removed from this category by being demolished, secured, repaired, or reinspected and re-categorized.

By August 1990, ten months after the earthquake, 369 buildings had been red-tagged, and seven remained in that category. Fifty-one buildings which had been identified by the Bureau of Building Inspection (BBI) as unsafe had been demolished. Thirty-five of the fifty-one demolished red-tagged buildings were residential buildings, containing a total of 512 units.

Seventy-eight buildings are currently categorized as "secured." (See page 4 for an explanation of this term, which is not part of the ATC-20 system.) Secured buildings are unoccupiable. Of these 78 buildings, 51 contain residential units, with a total of 591 units. Thus, over 1,000 residential units have been removed from use by demolition or securing.

Approximately 1650 buildings, including about 730 residential buildings, were yellow-tagged in the year after the earthquake. (This includes about 90 buildings which had been red-tagged and reclassified to yellow, and are among the 369 buildings discussed above.) Very few of these buildings have been demolished. (To put these figures in context, there are about 120,000 buildings in San Francisco. About 1.6% of the total building stock was at some point yellow-tagged or red-tagged.)

Many other buildings sustained non-structural, non-hazardous damage such as cracked plaster and broken glass, and were not classified red or yellow. The costs of these repairs will be borne primarily by property owners and tenants.



A disproportionate share of the 1,100 residential units lost or unavailable for extended periods had housed low and moderate income people, including several single room occupancy hotels. Because of the previously-existing shortage of low-cost housing, this loss will result in a long-term social impact, and was one of the major impacts of the earthquake on San Francisco.

BBI identified several deficiencies in the ATC-20 system and developed some new categories in addition to the red, yellow and green categories set out by ATC-20. These observed problems should be given the highest degree of consideration in OES's current evaluation of the program. A new category "Secured" is being used for buildings which do not create a hazard to adjoining structures or to any street or public way, but which are unsafe for occupancy or use. A building classified "Secured" is neither red nor yellow. Examples of "secured" buildings are those where work under a building permit has been completed to shore up, brace, partially demolish or otherwise secure the building, or when a building is endangered by a nearby building.

A major problem was confusion as to the meaning of "yellow - limited entry." This classification was changed to mean that "certain designated areas or portions of the building may be unsafe, building may be entered and occupied." This classification is used for buildings which do not present an immediate hazard, but which require repairs. These changes would require a reevaluation of the ATC's original concept of a sequence of detailed inspections, with buildings moving through mutually exclusive categories of red to yellow to green.

The State Office of Emergency Services assisted San Francisco by providing for volunteer inspectors from outside of the City. While the volunteers themselves were extremely helpful in the immediate post-earthquake period, OES did not provide for enough necessary coordination for their support (transportation, food, shelter). In future disasters where outside volunteers are used, the process would be smoother if each group of volunteers organized by OES included a "group leader" to provide logistical and organizational support.

### 3. INFORMATION MANAGEMENT

City officials were confronted with enormous demands for information from the media, the public and from state and federal agencies. Timely estimates of damage, injuries, displaced people were needed for response and recovery efforts. The City had little data analysis capability.

The State of California should address this problem by working with local agencies to develop standard reporting systems, perhaps by having available standby computers pre-programmed to handle disaster data, and by training local agencies in reporting systems before a disaster.



#### 4. SHELTER AND TEMPORARY HOUSING ASSISTANCE

The response to the needs for social services (food, shelter, temporary housing) within the first few hours after the earthquake were addressed by federal agencies and the Red Cross. These agencies' responses, while necessary and welcome, seemed to be designed for a different cultural setting than San Francisco, and did not take into account local living patterns. Their regulations were based on an image which in some ways was not reflected in San Francisco, where earthquake victims included people with different cultural backgrounds and languages, different economic resources, some who lived in single room occupancy hotels, and some with pre-existing substance abuse or mental health problems. As a result, many needs for social services for earthquake victims were unmet or inappropriately met.

Their lack of knowledge about local conditions contributed to some unfortunate policies. For example, FEMA determined that only those who had occupied their units for 30 days were eligible for housing assistance (although the Stafford Act states that the unit must be one's "principal residence" with no specified time limit). Local officials knew that for a substantial population, single room occupancy hotels are the principal residence, even though these rooms may be occupied for less than 30 days at a time. The City, had it had the major responsibility and preparation to administer the temporary housing program, would have better been able to meet the needs of this portion of the population, for whom the Loma Prieta earthquake exacerbated an already grim situation.

The temporary housing assistance program is intended to provide "suitable" temporary housing until suitable permanent housing is available. Because the determination of what constituted appropriate housing, who was entitled to housing assistance, and how the program should be administered, was made by those with no working knowledge of the San Francisco housing market or San Francisco resident patterns, misjudgments about how to handle many displaced by the earthquake were made. FEMA established a \$950 monthly rental allowance for all households, regardless of size or of type of housing needed. Larger families found it impossible to find adequate housing in San Francisco at this rent. Federal agencies were also unwilling to maintain any flexibility in their programs. For example, they were unwilling to fund furniture storage costs, even when it resulted in a total cost of less than \$950 for housing a displaced household.

The temporary housing assistance program consisted primarily of subsidies to be used in the private rental market. In a large city with limited housing resources, such as San Francisco, this can be a difficult market to negotiate in the best of times. In situations where adequate private rental housing is not available, the Stafford Act authorizes the federal government to provide temporary housing, such as mobile homes or other readily fabricated dwelling, for disaster victims. To our knowledge, this was not considered.

There was a need for a housing referral system to match temporarily or permanently homeless earthquake victims with available units. This was not part of the FEMA model. The State of California should recognize this as an immediate post-disaster need in urban areas, and plan for including this service in local assistance programs. An ad hoc referral system was developed



by the City and the Red Cross when the need became apparent. An effective program would include local government agencies, non-profit and private housing providers.

The Federal legislation and regulations establishing the temporary housing assistance program specifically authorize States, and through the States, local jurisdictions, to take over substantial administrative responsibilities. (44 CFR 206.101(s)). A State requesting such authority "must have an approved plan prior to the incident [and] must comply with FEMA program regulations and policies." It also provides for funds for technical assistance to States to make this possible. The State of California should aggressively pursue this avenue. Local agencies could much more effectively implement temporary housing programs because of their familiarity with local conditions and staffs which could be immediately available.

## 5. RECOVERY

The primary funding sources for post-earthquake recovery are agencies of the federal government, including the Federal Emergency Management Agency (FEMA), the Small Business Administration, the Department of Education and others. The administration of some of these programs, including the application and disbursement procedures, is performed by those federal agencies. Other federal programs are administered by State agencies, or by local governments working through State agencies. State programs are generally intended to supplement, rather than replace, federal programs. In general, this concentration of administration responsibility at the federal and state levels resulted in inefficient and untimely response to the needs of victims, including residents, businesses, non-profit and public agencies.

Administrative costs of administering all of these programs were (and continue to be) large for all levels of government. FEMA and SBA hired and trained new staff. Federal and state staff people from out of the area were brought in and maintained in the Bay area at considerable expense. Inevitably, City employees and officials became involved, either because they alone could supply needed information, because the City was the applicant, or because they were approached by citizens who were unaware of or frustrated by the federal bureaucracy. This involvement was made the more difficult because San Francisco had had no prior experience or preparation in dealing with federal disaster response. When the complexity of this task became clear, the City hired one full-time, experienced federal recovery expert to train and coordinate other City staff involved in federal and State programs. About twenty City staff people devoted full time to these programs for about nine months. The reimbursements for administrative costs did not cover the City's expenses.

City and County agencies, if adequately prepared, would have been better able to administer recovery programs and respond to local recovery needs. They have knowledge of and interest in local conditions and local culture, and motivation to achieve recovery. Because they are familiar with the area, and are on-hand during and immediately after a disaster, they will likely have a better understanding of evolving disaster conditions. Active local involvement could have avoided some duplication of effort between those



administering different programs. As an example of this kind of duplication, federal employees administering the SBA loan program had to inspect buildings to confirm that they had been damaged or destroyed. That information already existed in the records of the BBI.

In order to effectively exploit these local advantages, a systematic program to prepare for local involvement in the post-disaster administration of both the Individual Assistance Program and the Public Assistance Program, as well as other recovery activities needs to be established. If localities chose to assume substantial post-disaster administrative responsibilities, the State should assist them in determining an effective administrative structure which assigns the responsibility for specific post-disaster tasks to specific local agencies. The State should provide an ongoing program of training in the requirements of state and federal programs. This recovery effort should be integrated into the comprehensive preparedness and response described in the Introduction and Overview.

### Individual Assistance Program

The federal Individual Assistance Programs are intended to provide housing assistance, grants and loans to renters, homeowners and businesses whose homes, buildings or personal property were lost or damaged. At least six different programs, with different points of contact, were operating in San Francisco after the Loma Prieta earthquake.

The time involved for individuals applying for individual assistance was sometimes excessive because of the number of State and federal agencies and regulations involved and their lack of flexibility. For example, because of confusion about the scope of the authority and responsibility of California OES, FEMA, HUD, and the Department of Transportation, it took nine months to determine whether expenditures to repair a possible landslide effecting private homes, public land and public streets were eligible for reimbursement, and by what agency. This delay resulted in substantial hardship and costs to residents, and to the federal government which was funding temporary housing for these displaced residents, who were still displaced over a year after the earthquake.

Even in simpler situations, the time of victims and of those administering the programs was often wasted by lack of coordination between state and federal agencies. For example, the California Natural Disaster Assistance Program (CALDAP) was available only to those who had been denied federal aid. Even if it was clear that federal assistance would not be available, victims were required to go through the application process in order to be formally denied, a process which in some cases took up to six months, and which discouraged applicants. Separate damage inspections were required by the state program. Because these inspectors were more familiar with local code requirements and labor and material costs, this additional inspection often resulted in higher damage assessments, and strengthened some applicants' cases. But these additional inspections could only occur months after the federal inspections. Delegation of the initial inspection responsibility to localities would have saved time and money, for both the government and for earthquake victims. If the state loan application was approved after local screening, release of funds by the State Controller could add two months to the process.



Although local screening of possible applicants suggested that about 500 were potentially eligible, only 182 actually applied for the CALDAP program, suggesting a high degree of discouragement among victims. The total value of these loan applications was about \$23.9 million. By July 1990, no state loans had been actually funded under this program, although staff processing and recommendations for approval of a number of applications had occurred. As of January 1, 1991 (over one year from the earthquake) only 14 loans, totaling \$2.9 (12% of the total applied for) had been funded.

The federal lack of familiarity with local conditions was reflected in a lack of recognition of the high cost of building in San Francisco by SBA inspectors, and of necessary related costs, such as required code work. Consequently, many of the approved loan applications were approved at dollar values well below the amounts applied for, based on unreasonably low federal cost estimates. The process for appealing these determinations was lengthy. This forced applicants to apply to the CALDAP program as well, which had more realistic cost estimates, as a de facto "appeals process."

The Mayor's Office of Housing conducted a survey of thirty owners of red-tagged multi-family properties in the Marina. Only one of the surveyed owners felt satisfied with the amount, terms, and timeliness of their approved loan. The remainder had often strong negative comments regarding the frustrations and futility of the experience. Several had been forced to sell property at a loss due to lenders' or investors' pressures, only to find out weeks later they had been given SBA approval. Frustration with the federal programs was so high that the U.S. Representative for the district had to assist over 200 constituents through the process. The terms and bureaucratic approval process were sufficiently discouraging that several persons contacted said their decision not to apply for the state loan (which might have been more beneficial) was based on "disbelief that they could ever expect any genuine help from any government entity".

Many of the multi-family rental properties in San Francisco had a higher replacement value than the maximum federal loan amount of \$500,000. The average multi-family building that was severely damaged in the Marina contained 12 to 20 units, with a replacement cost, excluding land, ranging from \$85,000 to \$150,000 per unit. Although the state program was more realistic, by not setting maximum eligible amounts, applicants had to apply to and be rejected by SBA in order to apply to the CALDAP program.

While the State program included incentives, such as forgiven interest and principal, to replace lost low income units, the federal programs did not. Of the over 350 units in the July Marina District survey, 10% had been rented at very-low income levels prior to the earthquake. Many building owners expressed a concern that they could not re-rent units at those rates given the terms of the federal loan program, but would have been willing to if there had been sufficient incentives. Most of the units lost in the Marina were rental units, and all the replacement units will be condominiums in order to repay conventional or SBA loans. Therefore, federal recovery policy has actually led to the de facto conversion of hundreds of rental units, many at low and moderate income levels, to upper income condominiums. This is contrary to federal HUD policy under non-emergency circumstances.



The Congress, in enacting the Stafford Act, intended those displaced by disaster to receive temporary housing until suitable permanent housing was available, and it intended that permanent replacement housing be provided. There were 2,457 households provided with temporary housing assistance by FEMA. Thirty-three remain in the program one year later. Given the realities of the San Francisco housing market, particularly that portion of it accessible to those of low or moderate income after the loss of over 1,000 units in the earthquake, it seems unlikely that all of those who received temporary housing assistance have found suitable permanent housing. Many were not adequately informed that this is a federal responsibility; some have become frustrated in dealing with a distant, complex, bureaucracy; some have left the area, have settled for inadequate housing, or become homeless. Some have turned to the City, which may be perceived as a closer, more sensitive, bureaucracy, and which is the usual source of aid for the poor, for assistance.

Because of the complexity of the programs and the variety of federal agencies involved, and because of their relatively short-term commitment to the victims and to the areas, there was no follow-up to determine whether those in need of assistance actually received the assistance they needed. A locally administered program to match victims with resources, perhaps using a caseworker approach in which each disaster victim needs to deal with one government contact rather than several, could be more effective and efficient than the current, complex and distant system.

#### Public Assistance Program

Public facilities were also damaged by the earthquake. The City estimates the costs to repair damaged City facilities at about \$130 million dollars including about \$60 million dollars for public buildings, \$19 million dollars for port facilities, \$15 million dollars for airport facilities, and \$21 million dollars for Unified School District facilities. About \$14 million dollars will be needed to repair facilities of non-profit agencies which qualify for the Public Assistance Program.

The federal Public Assistance Program is intended to provide funding for repairing or replacing facilities of public or non-profit agencies. Applications for these federal funds are made by local agencies, through the State, to FEMA. Partially as a result of this three-level process, and partially as a result of ambiguous regulations or inflexible application of regulations by federal agencies, this program has required considerable administrative time from City staff, and funds have been slow to reach the local level where necessary expenditures are made. About \$30 million (of the \$130 million the City believes is appropriate) had been received one year later. As a result, many immediate and mid-term needs have not yet been met and necessary repairs have not been made. To the extent that these repairs will mitigate existing earthquake hazards, delay entails additional risk.

San Francisco has, to a very small extent, bridged this gap by using donations from the public to the City which totalled over \$4 million. After a larger disaster than the Loma Prieta earthquake, or in a less economically resilient area than the Bay Area, or if public donations were not forthcoming, local governments would not be able to sustain the time and effort required by the Public Assistance Program.



The State could considerably simplify the administration of the federal Public Assistance program by changing the character of the program from one of reimbursement for exhaustively detailed expenses, to one which distributes "block grants" to local agencies which sustained damage. State and federal agencies could establish granting criteria which measure the magnitude of a disaster (which effects the ability of an area to recover) and the estimated damage. Assistance could occur quickly and without a detailed application process. Local governments could establish their own priorities for short-term and long-term recovery assistance.

## 6. HAZARD MITIGATION

The State of California could promote seismic safety in housing in several ways. Existing State and federal programs to assist owners of low-income or multi-family buildings undertaking building code-required repairs, such as the federal Rental Rehabilitation Program, the California Rental Rehabilitation Program, the California Housing Rehabilitation Program, should be expanded to include voluntary seismic upgrading. These programs generally contain per-unit spending caps and restrict spending to code-required improvements. Publicly-subsidized housing rehabilitation projects should, as a matter of policy, encourage or even require funding for seismic safety work, rather than discouraging it. The recent voter-approved bond issue for seismic rehabilitation work is an example of a positive policy toward mitigation. However, it will not be sufficient to meet the needs for seismic retrofitting. Once this bond pool is exhausted, there will be a disincentive for the acquisition and seismic rehabilitation of buildings.

About seventy severely damaged buildings in San Francisco have not been repaired or demolished, and the evidence is that the costs of repair are so large that the owners may abandon these buildings. Recent changes to state law make it easier for the City to institute receivership of damaged abandoned buildings, but such laws do not provide for the necessary construction or take-out financing. Current state law which authorizes court receivership for unreinforced masonry buildings which are not brought up to requirements should be expanded to cover post-disaster abandoned buildings.

An earthquake presents an opportunity for research which could inform future mitigation efforts statewide. San Francisco took advantage of this. For example, the condition of all of the City's unreinforced masonry buildings was carefully surveyed. While perhaps not explicitly intended, OES made this possible by supplying volunteer engineers. In future disasters, the state should recognize this opportunity, and encourage and publicize such efforts. Rebuilding also presents an important research opportunity. Repaired buildings should be monitored, and have instruments installed, to measure their response to future earthquakes. Since some rebuilt and repaired buildings use new engineering techniques, important information could be derived from a systematical research effort, which could best be coordinated at the State level as part of the Strong Motion Instrumentation Program. As part of this effort, the State should conduct detailed debriefings to collect information about how local agencies handled the problems they encountered. This information should then be passed on to others.



## SUMMARY

To summarize the issues explored above, we believe that the State should encourage a comprehensive preparedness and response program tailored to local needs. It should include hazard identification, vulnerability assessments, preparedness and response planning, mitigation planning and public awareness/education, and should be carried out as much as possible at the local level. The State should, in cooperation with local agencies, design programs and systems which could be implemented on the local level. The State program should include standards in order to assure that localities are well prepared to carry out their responsibilities.

### 1. LIFE SAFETY

The State is currently developing a program to assist local governments develop civilian volunteer training. The State, should promote the establishment of local citizen volunteer training programs. This could include funding local programs, providing materials, training the local trainers, providing equipment to volunteers, perhaps including a training session for citizen volunteers at the California Specialized Training Institute. Topics could include fire suppression, first aid, search and rescue, building safety.

The state should facilitate an intra-regional system, including local governments and public and private transportation providers, to immediately transport essential personnel to and from pre-determined points after a major disaster.

### 2. BUILDING SAFETY

The deficiencies in the ATC-20 system observed in San Francisco should be considered in OES's current evaluation of the ATC-20 program, including the current lack of categories for buildings which do not create a hazard to adjoining structures or to any street or public way, but which are unsafe for occupancy or use, or for buildings which do not present an immediate hazard and can be occupied, but which require repairs.

When outside volunteer building inspectors are used, each group of volunteers organized by OES should have a "group leader" to provide logistical and organizational support.

### 3. INFORMATION MANAGEMENT

The State should work with local agencies to develop standard reporting systems, perhaps including standby computers pre-programmed to handle disaster data.

### 4. SHELTER AND TEMPORARY HOUSING ASSISTANCE

A model shelter and temporary housing referral system for earthquake victims should be established. It should be operated by local governmental agencies with the cooperation of local housing and real estate groups.



The State should develop a temporary housing plan and encourage local administration of the temporary housing assistance program as provided by federal regulations.

## 5. RECOVERY

A program to prepare for local involvement in the post-disaster administration of both the Individual Assistance Program and the Public Assistance Program, as well as other recovery activities needs to be established. The State should assist local agencies in determining an effective post-disaster administrative structure. The State should provide an ongoing program of training in the requirements of state and federal programs. Local administration of this program should be part of a comprehensive preparedness and response program tailored to local needs. Part of the State-level program could be the development of standards to be met by local agencies, perhaps including standards for and oversight of local preparedness plans, mitigation programs, and post-disaster administrative structures. This funding should be provided as a "block grant" conditioned only on the operation of an effective and efficient overall earthquake preparedness program.

The State should enact a temporary sales tax increase which could automatically take effect when damage estimates exceed some pre-determined level during a declared emergency.

The State should better coordinate the California Natural Disaster Assistance Program (CALDAP) and federal assistance. Duplicate inspections should be avoided whenever possible.

Information about local conditions, such as code requirements and building costs should be incorporated into recovery programs.

The State should provide planning, training and financial resources for locally run programs to match victims with resources, perhaps using a caseworker approach in which each disaster victim needs to deal with one government contact.

## 6. HAZARD MITIGATION

State and federal housing rehabilitation programs to assist owners of low-income or multi-family buildings undertaking building code-required repairs should be expanded to encourage voluntary seismic upgrading.

Current state law which authorizes court receivership for unreinforced masonry buildings which are not brought up to requirements should be expanded to cover post-disaster abandoned buildings.



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